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10/039,934	10/26/2001	Mohammed Ali AbdEl-Halim AbdEl-Wahid	1011-59137	9957

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EXAMINER

TRIMMINGS, JOHN P

ART UNIT PAPER NUMBER

2133

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

This office action is in response to the applicant's amendment dated 10/4/2004.

The applicant has stated that Claims 1-37 are pending, however, the examiner notes that the original number of claims was 1-36, and that the applicant, in the said amendment, has not provided a new Claim 37.

The examiner notes that the applicant has amended Claims 7, 10, 17, 23, 34, 35, and 36.

Claims 1-36 are pending.

Response to Amendment

1. The examiner acknowledges receipt of the applicant's changes to Figures 2, 5 and 9, approves said changes, and withdraws the objections to said figures.
2. The examiner acknowledges receipt of the applicant's changes to the Specification, approves said changes, and withdraws the objections to said Specification.

Response to Arguments

As per Claim Rejections - 35 USC § 112:

3. Applicant's arguments, see amendment, filed 10/4/2004, with respect to Claim 35 have been fully considered and are persuasive. The rejection of Claim 35 under 35 USC 112 first paragraph has been withdrawn.

4. In view of the applicant's amendments to Claims 7, 10, 34, 35 and 36, see amendment, filed 10/4/2004, the rejection of the said claims under 35 USC 112 second paragraph have been withdrawn. However, the amendments to Claims 7 and 35 have necessitated new rejections to Claims 7 and 35 (see below).

As per Claim Rejections - 35 USC § 102(e):

5. Applicant's arguments, see amendment, filed 10/4/2004, with respect to Claims 17-19 and 27-29 have been fully considered and are persuasive. The rejection of Claims 17-19 and 27-29 under 35 USC 102(e) has been withdrawn.

As per Claim Rejections - 35 USC § 103a):

6. As per Claims 20-26:

In view of Claims 20-26 being dependent on Claim 17 above, the rejection of Claims 20-26 under 35 USC 103(a) has been withdrawn.

7. As per Claims 1-16 and 30-36:

The independent Claims 1, 30, 35 and 36 were argued by the applicant, and are rebutted by the examiner as follows:

As per Claims 1-16, 35 and 36:

The applicant has not argued that Sugamori does not teach or suggest the features of the integrated circuit comprising testing circuitry and core logic, but suggests that the motivation for Sugamori teaches away from a combination of test and core logic circuitry. The examiner disagrees, and is supported by column 6 lines 38-46, where improved test design and design efficiency are attained with Sugamori, supporting the suggestion that an integration design choice would be successful. Also

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argued re: Claims 1 and 12, is that Sugamori does not teach "tolerance values" or "a memory" that stores tolerance values. But the Background does teach these features; in column 1 lines 40-50, tolerance data ("expected value data") is stored in the pattern generator (FIG.1 PG12 = FIG.4 Event Memory 60). As for the applicant's argument re: Claim 5, the examiner maintains the teaching of Sugamori of a 2nd memory storage for storing test results (diagnostic data) in FIG.4 68 or 60. As for the applicant's argument re: Claim 8, the examiner maintains the teaching of Morris wherein a TAP is comparable to a JTAG compliant device. It is well known in the art that this relationship is accurate, for the Joint Test Action Group was the chartered team that drew up the original Test Access Port specifications of the IEEE 1149.1 Standard. As for the applicant's argument re: Claim 12, where Sunter does not support "noise calibration"; the examiner disagrees and cites column 1 lines 40-43, column 2 lines 46-50, and column 1 1 lines 58-63, and is also supported by a noise circuit discussed by Sunter for example, in column 2 lines 9-30, ("One known testing approach applies a test signal from a binary counter or linear feedback shift register (LFSR) to the DAC and sums the resulting output signal from the ADC for all possible inputs, or a known subset thereof. Since noise on average sums to zero, the ADC output sum should be independent of noise."). As for the applicant's argument for Claim 16, Sugamori teaches a means for selecting a condition checker from the plurality of condition checkers in the testing circuitry (FIG.4 53 and column 8 lines 39-49) to compare a test value with an associated tolerance value (column 9 lines 23-30). Therefore, in view of the above

rebuttal and rejections in the examiner's first office action, the examiner maintains the rejections of Claims 1 and independent Claims 2-16 under 35 USC 103(a).

8. As per Claims 30-34:

The applicant has argued that Claim 30 is not supported by Sugamori for the same reasons given for Claim 17 above, and that Claim 34 lacks support for "means for selecting a condition checker" as in Claim 16 above. In view of the examiner's previous rebuttal above for Claims 1-16, Claims 30-34 are maintained as being rejected under 35 USC 103(a), based on said rebuttal above and the original rejections in the examiner's first office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 7 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected because they are improper Markush claims, where the limitations render the claims indefinite.

As per Claim 7:

The term "including at least" is not a positive limitation. The examiner recommends that the term be changed to "consisting of". "One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See Ex parte

Markush, 1925 C.D. 126 (Comm'r Pat. 1925)", and "Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims". (See MPEP §2173.05(h)). Also, the group limitation is in the form of "A,B,C", and therefore the examiner is unsure if the applicant is limiting the group to "or" or "and".

As per Claim 35:

The term "including at least" is not a positive limitation. The examiner recommends that the term be changed to "consisting of". "One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925)", and "Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims". (See MPEP §2173.05(h)).

Allowable Subject Matter

10. Claims 17-29 are allowed. The following is an examiner's statement of reasons for allowance: The reference art of Sugamori and Turnquist teach a method for testing an integrated circuit with analog nodes and test logic based on a circuit comprising; a memory for storing, and circuit for selecting a test node, a means of obtaining the test value result, means to retrieve a comparison value to compare to the test value, applied to a comparator, in the circuit. However, the prior arts of record taken alone, or in combination failed to teach, anticipate, suggest, or render obvious the claimed invention

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or the method steps of the application. Specifically, as per Claim 35, the prior arts failed to teach, anticipate, suggest, or render obvious the limitation introduced into these claims, namely: the comparator performs comparisons for plural analog nodes. Consequently, Claim 35 is allowed over the prior arts of record. Claims 18-29 are directly or indirectly dependent upon Claim 17, and therefore are also allowable over the prior arts of record. Therefore claims, 17-29 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

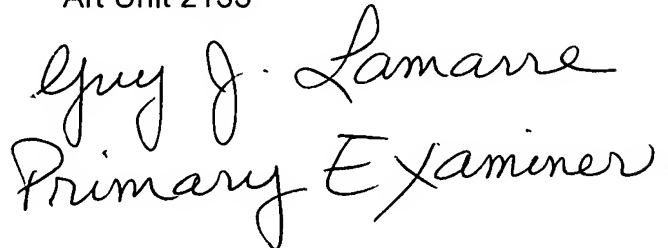
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is (703) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P Trimmings
Examiner
Art Unit 2133

jpt


Primary Examiner